

REMARKS

Reconsideration of presently solicited Claims 1, 3, 5 to 23, 25, and 27 to 36 respectfully is requested. For the reasons indicated in detail hereafter, these claims, particularly as amended herein, are urged to be patentable over the different teachings of the newly cited references.

It respectfully is requested that the Examiner acknowledge the safe receipt of the priority document that was filed on April 9, 2004.

A Petition for Extension of Time (one month) is being filed concurrently herewith.

The present invention provides a specifically-defined ferromagnetic powder composition and method for die compaction to provide high density soft magnetic composite parts. Soft magnetic composite parts are made possible which display remarkably high magnetic induction levels together with low core loss. In spite of the very high densities, compacted parts with high electrical resistance can be successfully ejected from the dies without negatively influencing the finish of the die walls and/or the surfaces of the soft magnetic composite parts. It is thus possible to obtain quality compacted parts. Such results are achievable on an efficient basis while using a single compaction step.

It respectfully is submitted that the continued rejection of Applicants' presently solicited claims under 35 U.S.C. § 103(a) over the different teachings of U.S. Patent Nos. 6,855,394 to Noguchi et al. or 6,527,823 to Moro would be lacking a sound

technical and legal bases. The different teachings of the cited prior publications deserve detailed consideration.

The Noguchi et al. teachings concern non-analogous technology involving a magnetic recording medium. See particularly the title and the "Field of the Invention" wherein a coating-type magnetic recording medium is applied as a thin magnetic layer for high density recording. Differences between the presently claimed invention and the express teachings of Noguchi et al. abound. For instance, the ferromagnetic powders utilized by Noguchi et al. are much smaller than those utilized in Applicants' different area of technology. See, in this regard, Col. 6, lines 2 to 4, of Noguchi et al. wherein it is indicated:

The average long axis length of the ferromagnetic metal powders is generally from 0.02 to 0.25 μm , preferably from 0.03 to 0.15 μm , and more preferably from 0.03 to 0.12 μm .

This information is consistent with the attached Page Nos. 77 to 79 from Vol. 7 of ASM Handbook where it is indicated that powders used for magnetic recording media are nanoparticles having a particle diameter of $< 1 \mu\text{m}$ or 1000 nanometers. As indicated in Applicants' Specification, considerably coarser particles may be utilized when practicing Applicants' technology with respect to die composition. One skilled in the art would not contemplate the use of a nanopowder for die compressing. Applicants' contribution involving non-analogous die compaction to achieve particularly advantageous results is neither disclosed nor remotely suggested by the different teachings of Noguchi et al.

The Moro teachings likewise are different and concern the preparation of dust cores where the formation of a high density product is not an objective. The Moro

composition by necessity includes a resin as an insulating material as indicated in Fig. 1 and at the bottom of Col. 4 and the top of Col. 5. At the bottom of Col. 5 the quantity of the essential resin is indicated to be "preferably 1 to 30 percent by volume and more preferably 2 to 20 % by volume to the ferromagnetic powder". As indicated at Col. 6, lines 23 to 37, an inorganic insulating material may be used in combination with the insulating resin. However, no inorganic insulating material was utilized in the examples of Moro. It is mentioned in passing that "a silane coupling agent and a titanate coupling agent may be used" if present to "make the inorganic materials hydrophobic". Any silane used by Moro is not used for lubrication as in the present invention. Instead, Moro requires in all instances the use of aluminum stearate as a lubricant. Additionally, Moro recommends that the reader employ powder particles of a smaller size than those utilized in Applicants' different technology directed to the achievement of improved results during die compaction. See Col. 4, lines 29 to 32, of Moro in thus regard where it is stated:

The average particle diameter of the ferromagnetic powder is 5 to 150 μm , preferably 10 to 100 μm .

In the Examples of Moro, the average particle size of the Permalloy powder was only 13 μm . Moro contains no teachings with respect to formation of a high density product and is devoid of guidance for forming a high density product in an improved manner. It respectfully is submitted that there is no basis in law or fact for the sweeping unsupported conclusion with respect to obviousness expressed at Page 2 of the Official Action.

A *prima facie* basis for an obviousness rejection of the presently claimed subject matter is absent in the reasonably derived teachings of the references. To

establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested in the prior art. See M.P.E.P. § 2143.3 citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in the claim must be considered when judging the patentability of the claim against the prior art". In re Wilson, 424 F.2d 1342, 165 USPQ 494 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim that depends therefrom is patentable. The subjective opinion of an Examiner without evidence in support thereof, does not provide a factual basis upon which a legal conclusion of obviousness may be reached. See In re GPAC Inc., 57 F.3d 1573, 1582, 35 USPQ2d 1116, 1126 (Fed. Cir. 1995).

The mere allegation that the differences between the claimed subject matter and the prior art are obvious does not create a presumption of unpatentability. See In re Soli, 317 F.2d 941, 137 U.S.P.Q. 979 (CCPA 1963). Obviousness must be predicted on something more than it would be obvious "to try". See Ex Parte Agrabright et al., 162 U.S.P.Q. 703 (POBA 1967), and In re Mercier, 515 F.2d 1161, 185 U.S.P.Q. 774 (CCPA 1975). It is well-established law that patentability determinations of this type would be contrary to the statute. See In re Antonie, 559 F.2d 618, 195 U.S.P.Q. 6 (CCPA 1977); In re Goodwin et al., 576 F.2d 375, 198 U.S.P.Q. 1 (CCPA 1978); and In re Tomlinson et al., 363 F.2d 928, 150 U.S.P.Q. 623 (CCPA 1966).

Applicants' specifically-claimed contribution is neither disclosed nor remotely suggested. The withdrawal of the sole remaining rejection is urged to be in order and is respectfully requested.

If there is any point that requires clarification prior to the allowance of the Application, the Examiner is urged to telephone the undersigned attorney so that the matter can be discussed and resolved.

Respectfully submitted,

BUCHANAN INGERSOLL PC (INCLUDING ATTORNEYS
FROM BURNS DOANE SWECKER & MATHIS)

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By: Benton S. Duffett Jr.

Benton S. Duffett, Jr.
Registration No. 22,030

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620